

AP1000 Protection and Safety Monitoring System Review Plan

NRC Comments on NEI 04-01 FSAR Chapter 7

"The NRC staff intends to perform inspections that will audit the satisfactory completion of ITAAC requirements, including the DAC. In accordance with section 52.99, 'At appropriate intervals during construction...'"

"The staff will use a two part approach... The first part will involve a detailed, functional review at the block diagram level, to ensure appropriate implementation of NRC requirements..."

"The second part ... will address the implementation..."

AP1000 ITAAC 2.5.2-11

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The PMS hardware and software is developed using a planned design process which provides for specific design documentation and reviews during the following life cycle stages:

- a) Design requirements phase, may be referred to as conceptual or project definition phase
- b) System definition phase
- c) Hardware and software development phase, consisting of hardware and software design and implementation
- d) System integration and test phase
- e) Installation phase



AP1000 IC Review Schedule ppt

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AP1000 Design Requirements Phase

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- Life Cycle Activity Group: Planning Activities
- Proposed Review: 12 months after start of design
- Documents:
 - Software Program Manual
 - Project Quality Plan
 - Project Document Index
 - Commercial Grade Dedication Plan
 - AP1000 V&V Plan
 - System Test Plan



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AP1000 Design Requirements Phase

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Acceptance Criteria Satisfied

A report exists and concludes that the process defines the organizational responsibilities, activities, and configuration management controls for the following:

- a) Establishment of plans and methodologies.



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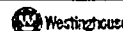
AP1000 System Definition Phase

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- Life Cycle Activity Group: Requirements Activities
- Proposed Review: 26 months after start of design
- Documents:
 - Generic Safety System Requirements
 - AP1000 Safety System Requirements
 - Functional Requirements
 - System Hardware Requirements
 - Software Requirements Specification
 - System Interface Requirements
 - Requirements Phase V&V Report
 - Requirements Phase RTM
 - Project Document Index



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AP1000 System Definition Phase



Acceptance Criteria Satisfied

A report exists and concludes that the process defines the organizational responsibilities, activities, and configuration management controls for the following:

- b) Specification of functional requirements.



AP1000 Hardware and Software Development Phase



- Life Cycle Activity Group: Design and Implementation Activities
- Proposed Review: 40 months after start of design
- Documents:
 - System Design Specification
 - System Architecture Drawings
 - Hardware Design Drawings
 - CM Release Report
 - Custom Software Element Design Specifications
 - Reusable Software Type Specifications
 - Module/Unit Test Procedures
 - Module/Unit Test Reports
 - BPL Software Design Description



AP1000 Hardware and Software Development Phase

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- Documents (continued):
 - LCL Software Design Description
 - ITP Software Design Description
 - ILC Software Design Description
 - MUX Software Design Description
 - MTP Software Design Description
 - Design and Implementation Phase V&V Reports
 - Design and Implementation Phase RTM
 - Project Document Index



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AP1000 Hardware and Software Development Phase

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Acceptance Criteria Satisfied

A report exists and concludes that the process defines the organizational responsibilities, activities, and configuration management controls for the following:

- c) Documentation and review of hardware and software.



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AP1000 System Integration and Test Phase



- Life Cycle Activity Group: Integration and Validation Activities
- Proposed Review: TBD after plant (hardware) order



AP1000 IC Review Schedule ppt 11



AP1000 Installation Phase



- Life Cycle Activity Group: Installation Activities
- Proposed Review: TBD after plant (hardware) order



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